

***Exogone (Exogone) mompasensis* (Polychaeta: Syllidae: Exogoninae),  
a new species from the Iberian Peninsula (Basque Country, Spain)**

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*Abstract.*—*Exogone (Exogone) mompasensis*, a new species of Exogoninae (Syllidae, Polychaeta) from the intertidal substratum of Mompás, coastal area located near San Sebastián (Iberian Peninsula), is described. The new species is most notably characterized by the short antennae and shape of strongly modified compound spiniger-like chaetae. The new species is very similar to two other species of the Southern Hemisphere.

Numerous specimens of an undescribed species of *Exogone* Örsted, 1845 were collected during a study of the macrobenthic communities inhabiting the intertidal zone of a polluted area in the San Sebastián coast (northeast of Iberian Peninsula). The new species is similar to two species of the Southern Hemisphere, *Exogone (Exogone) heterosetosa* McIntosh, 1885 and *Exogone (Exogone) heterosetoides* Hartmann-Schröder, 1979; but differs, essentially, in the size of the antennae and chaetal features. The new species is described, illustrated and discussed, and data on its ecology and biology are included.

#### Materials and Methods

Specimens were obtained from samples collected monthly between May 1996 and May 1997 at a station within the *Corallina elongata* community, located on intertidal rocky substratum. This station is close to the collector of the Mompás sewage network. An area of 400 cm<sup>2</sup> was chosen for each sample. All samples were collected by scraping the biota down to the rock surface. In the laboratory scrapings were washed through a 0.5 mm mesh sieve and the res-

idue fixed with 10% formaldehyde in seawater. The specimens were removed and transferred to 70% ethanol. Observations and measurements were made using a microscope with interference contrast optics (Nomarsky). Drawings were made with a "camera lucida." Scanning electron microscopical (SEM) micrographs were made after critical point drying and coating with 300 Å of gold at the SIDI (Servicio Interdepartamental de Investigación) of the Universidad Autónoma of Madrid. Types are deposited in the collections of the Museo Nacional de Ciencias Naturales of Madrid (MNCNM), Spain.

#### Results and Discussion

Family Syllidae Grube, 1850  
Subfamily Exogoninae Langerhans, 1879  
Genus *Exogone* Örsted, 1845  
*Exogone (Exogone) mompasensis*,  
new species  
Figs. 1, 2

*Type locality.*—Mompás (San Sebastián, Spain, Iberian Peninsula) (43°20'10"N, 01°57'40"W).

*Type material.*—Holotype: MNCN 16.01/8710a. Paratypes: MNCN 16.01/

8710b, 11 specimens. All individuals from Mompás (San Sebastián, Iberian Peninsula) (43°20'10"N, 01°57'40"W), 8 Apr 1997.

*Additional material.*—MNCN 16.01/8710c, 8 Apr 1997, one specimen with eggs ventrally attached. MNCN 16.01/8710d, 8 Apr 1997, two females with juveniles attached. MNCN 16.01/8710e, 8 Apr 1997, two juvenile specimens. MNCN 16.01/8711, 30 Jun 1996, one specimen with sexual products. All individuals from Mompás (San Sebastián, Iberian Peninsula) (43°20'10"N, 01°57'40"W). Numerous specimens from around Australia of the species *E. (E.) heterosetosa* and *E. (E.) heterosetoides* deposited at the Australian Museum (Sydney).

*Description.*—Body short, broad, 2.4 mm long, 0.29 mm wide, 28 chaetigers, without color markings. Prostomium oval, about 3 times wider than long; 4 eyes in open trapezoidal arrangement, apparently without eyespots. Median antenna longer than lateral antennae, cylindrical, distinctly shorter than prostomium and palps together, originating between anterior eyes; lateral antennae ovate, shorter than prostomium, originating between median antenna and each anterior eye (Fig. 1A). Palps broad, relatively long, longer than prostomium, fused all along their length, with a distal distinct notch (Fig. 1A). Peristomium similar in length to following segments, covering posterior margin of prostomium; tentacular cirri ovoid, about 0.25 as long as lateral antennae. Dorsal cirri similar to tentacular cirri, somewhat longer, absent on chaetiger 2 (Fig. 1A). First 3 parapodia each with about 6 compound chaetae, all compound heterogomph falcigers, blades with proximal tooth long and small distal tooth, short spines on margin (Figs. 1D, 2A), about 8–12  $\mu\text{m}$  long; parapodia from chaetiger 4 each with 4 similar compound falcigers (Figs. 1H, 2F), diminishing to 2 on posterior parapodia, provided with numerous spines on shafts, and solitary strongly modified pseudospiniger (Fig. 2B), distally expanded, spinose shaft, and blade triangular, large on bases, short, about 14–

16  $\mu\text{m}$  long, distally minutely bidentate (Figs. 1F, G, 2C–E). Solitary dorsal simple chaetae from anterior parapodia, unidentate with some short subdistal spine on superior face (Fig. 1C), thicker posteriorly (Figs. 1E, 2G). Solitary ventral simple chaetae on posterior parapodia, sigmoid, with long, robust proximal tooth and short, small distal tooth (Figs. 1I, 2H). Pharynx through 4–5 segments; pharyngeal tooth on anterior rim (Fig. 1A). Proventriculus through 3 segments, with about 13–15 muscle cell rows. Pygidium relatively large, semicircular, with 2 relatively short anal cirri, but longer than median antenna (Fig. 1B).

*Remarks.*—*Exogone (Exogone) mompasensis*, new species, is closely related to two species of the Southern Hemisphere, *E. (E.) heterosetosa* McIntosh, 1885 and *E. (E.) heterosetoides* Hartmann-Schröder, 1979. All three species are characterized by having compound spiniger-like chaetae strongly modified, enlarged, distally expanded and spinose, with short, triangular blades. *Exogone (E.) mompasensis* differs from *E. (E.) heterosetosa* in having shorter antennae, both median and lateral antennae, inserted more anteriorly, longer palps and somewhat shorter proventriculus; also, the shafts of spiniger-like chaetae are thicker (see McIntosh 1885, Haswell 1920). *Exogone (E.) mompasensis* differs from *E. (E.) heterosetoides* in the shape of the median antenna, bowl-shaped in *E. (E.) heterosetoides*, shape of dorsal and ventral simple chaetae, and in having bifid, smooth blades on modified spiniger-like chaetae instead unidentate, with long spines on margin, as occurs in *E. (E.) heterosetoides* (see Hartmann-Schröder 1979). One of the authors (GSM) has studied numerous specimens of *E. (E.) heterosetosa* and *E. (E.) heterosetoides* from Australia, and is currently preparing redescriptions of these Australian species; furthermore, *E. (E.) heterosetoides* is a long, slender species, with a filiform body (about 5 mm long, 0.2 mm wide, 56 chaetigers), and a small pharynx and proventriculus in relation to its body length,

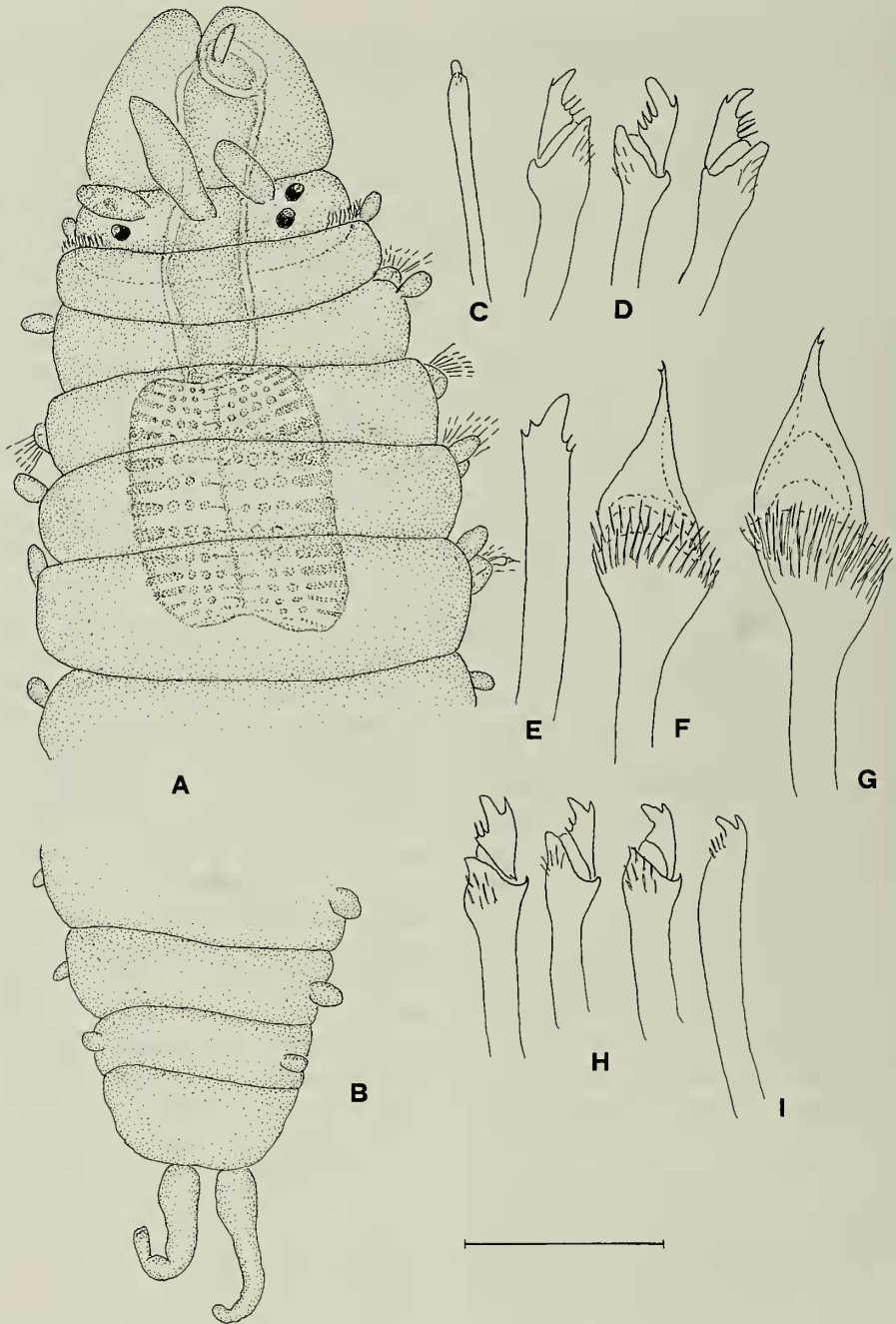


Fig. 1. *Exogone (Exogone) mompasensis*, new species. Holotype. A, anterior end, dorsal view. B, posterior end, dorsal view. C, dorsal simple chaeta, anterior parapodium. D, compound falcigers, most anterior parapodium. E, dorsal simple chaeta, posterior parapodium. F, modified spiniger-like chaeta, midbody. G, same, posterior parapodium. H, compound falcigers, posterior parapodium. Scale bar: A, B = 114  $\mu\text{m}$ ; C-I = 28  $\mu\text{m}$ .

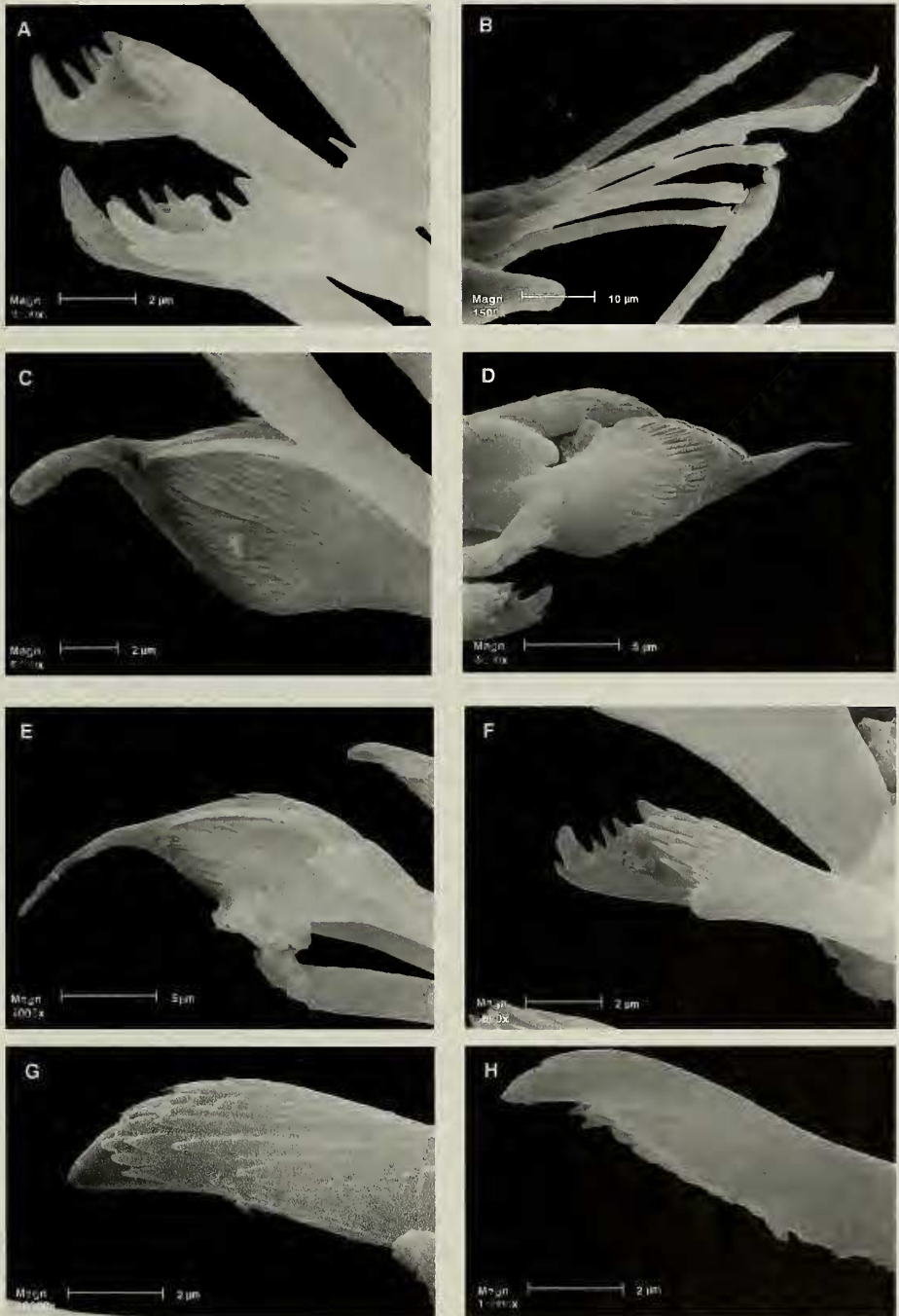


Fig. 2. *Exogone (Exogone) mompasensis*, new species. SEM. A, most anterior falcigers. B, fascicle of chaetae, midbody. C–E, modified spiniger-like chaeta. F, falciger, midbody. G, dorsal simple chaeta, posterior parapodium. H, ventral simple chaeta.

and *E. (E.) heterosetosa* and *E. (E.) mompasensis* are species with proportionally shorter and broader bodies (3–4 mm long, 0.23 mm wide, 30–40 chaetigers for *E. (E.) heterosetosa*, 2.4 mm long, 0.29 mm wide, 28 chaetigers for *E. (E.) mompasensis*) and longer pharynx and proventriculus in relation with body length.

*Distribution*.—Recorded only from type locality, Mompás (San Sebastián, Iberian Peninsula).

*Ecology*.—At the proximity of the sewage outfall drains, *Exogone (Exogone) mompasensis* is found in the low intertidal level (0.40 m–0.70 m), in exposed rocky substratum, which is dominated by a *Corallina elongata* community. The biocenosis where the new species was collected is characterized by the abundance of the tanaid *Hexapleomera robusta* (Moore, 1894), the bivalve species *Mytilaster minimus* (Poli, 1795) and *Mytilus galloprovincialis* Lamarck, 1818, the polychaetes *Platynereis dumerilii* (Audouin & Milne Edwards, 1833), *Boccardia* sp. and *Syllis gracilis* Grube, 1840, and the amphipod *Jassa marmorata* Holmes, 1903.

Several specimens with sexual products inside the midbody segments, and also some specimens brooding eggs ventrally were collected. Samples collected during February, April, May and June included females brooding advanced juveniles (up to 7 juveniles, with 6–7 chaetigerous segments) attached to the ventral surface between chaetigers 11 and 20.

*Etymology*.—The specific name refers to its type locality.

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